

The Solar System: A Graphical Model

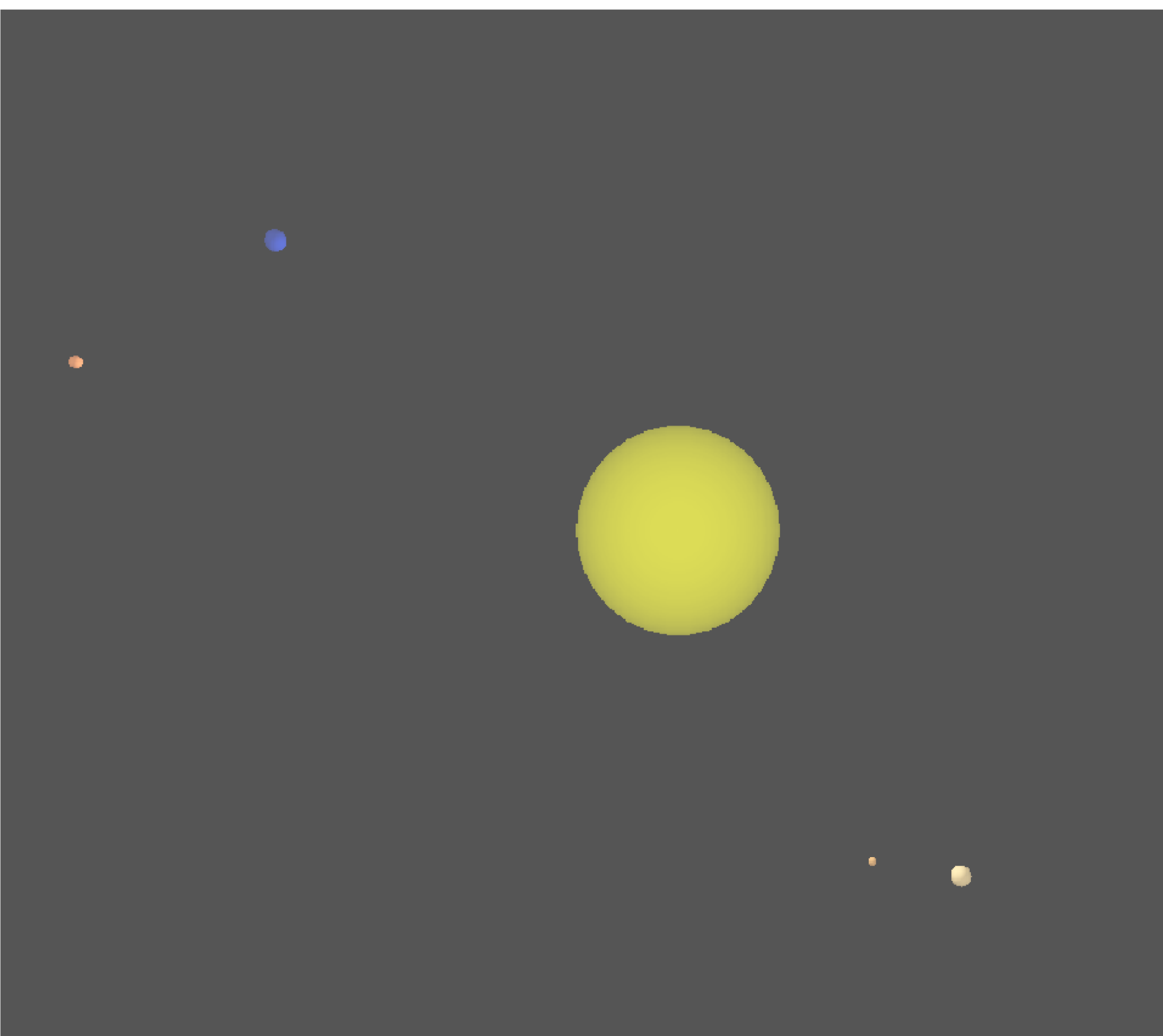
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Abstract

Earth is a planet contained in larger, complex systems – the Solar System and our Milky Way Galaxy. Throughout history, we humans have sought to expand our understanding of this system. How many planets are there? How is each planet different or similar from Earth, and why do these differences or similarities exist? Since the advent of space travel research has continued to expand, and today we know a great deal about our solar system. Yet, at the same time that our knowledge is actively expanding, a lack of viable Solar System models can prevent much of this knowledge from being shared with any but the most interested astronomers and physicists.

Introduction

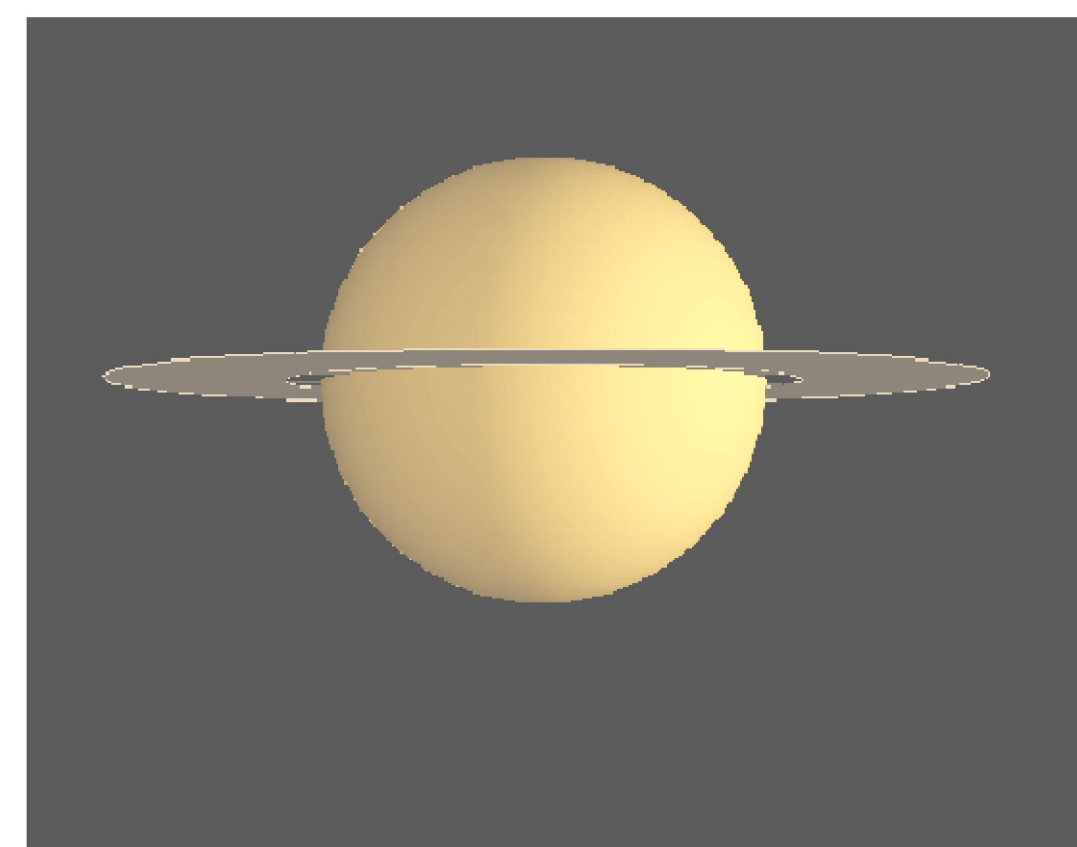
Even at the college level, students may have only minimally accurate knowledge about the Solar System. This problem can be corrected at an early level by teaching elementary school children about our solar system. As the current mechanical models of the Solar System are outdated, I propose to create a model using the technology of computer graphics in order to teach students the fundamentals of their Solar System. The model is more or less to scale, and will assist in teaching children the basics they should know about space.



The Inner Solar System

Results

Though not as dynamic as originally planned, this model is an interactive, educational representation of the Solar System. It consists of all nine planets orbiting the Sun in a manner that, though not entirely physically accurate, does simulate the force of gravity. Students can move the camera in order to view the Solar System from different points. From this model, students will learn the order of the planets in the solar system and have the option of obtaining further information about each of the planets. Most importantly, they can compare the revolution periods and inclinations of the planets firsthand as they watch the planets orbiting the Sun.



Saturn